REMARKS

Claim 1-22 were pending in this application.

Claims 1-22 have been rejected.

Reconsideration and full allowance of Claims 1-22 are respectfully requested.

I. REJECTION UNDER 35 U.S.C. § 103

The Office Action rejects Claims 1-22 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,819,058 to Miller *et al.* ("Miller") in view of U.S. Patent No. 6,167,503 to Jouppi ("Jouppi"). This rejection is respectfully traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. (*MPEP § 2142; In re Fritch, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992)*). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. (*MPEP § 2142; In re Oetiker, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984)*). Only when a *prima facie* case of obviousness is established does the burden shift to the Applicant to produce evidence of nonobviousness. (*MPEP § 2142; In re Oetiker, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993)*). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the Applicant is entitled to grant of a patent. (*In re Oetiker, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); In re Grabiak, 769 F.2d 729, 733, 226*

U.S.P.Q. 870, 873 (Fed. Cir. 1985)).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. (*In re Bell, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993)*). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on the Applicant's disclosure. (*MPEP § 2142*).

Claim 1 requires an "instruction issue unit" that issues "complete instruction bundles" toward multiple execution clusters, where at least one complete instruction bundle is "issued having an out-of-order alignment." Claim 1 also requires "alignment and dispersal circuitry" capable of "reordering each of the at least one complete instruction bundle having the out-of-order alignment" so as to "align the syllables in the complete instruction bundle with correct ones of the lanes."

As noted in the previous response, Jouppi lacks any mention that particular instructions must be executed by particular lanes in the computer system. For example, Jouppi lacks any mention that particular instructions must be executed by particular ones of the execution units 250, 251 in the execution clusters 280, 290. Instead, Jouppi simply recites that instructions are

provided to multiple execution units, which execute the instructions in parallel.

Because of this, Jouppi fails to teach or suggest an "instruction issue unit" that issues "complete instruction bundles" toward multiple execution clusters, where at least one complete instruction bundle is "issued having an out-of-order alignment" as recited in Claim 1. Jouppi also fails to teach or suggest "alignment and dispersal circuitry" capable of "reordering each of the at least one complete instruction bundle having the out-of-order alignment" so as to "align the syllables in the complete instruction bundle with correct ones of the lanes" as recited in Claim 1.

For these reasons, Jouppi fails to teach or suggest the Applicants' invention as recited in Claim 1 (and its dependent claims). For similar reasons, Jouppi fails to teach or suggest the Applicants' invention as recited in Claims 10 and 19 (and their dependent claims).

As such, Miller must be examined to determine if Miller provides the teachings not found in Jouppi. Miller does not teach or suggest the features of the independent claims not found in Jouppi, and so the combination of these references does not render the claims obvious.

To support the limitations discussed above, the Office Action makes no attempt at all to identify specific features of Miller that would possibly correspond to the features of the claims. For example, the final Office Action at no point identifies what element of Miller might be considered to be the claimed "instruction issue unit", and certainly Miller does not identify any element as an instruction issue unit.

Instead, the final Office Action makes general reference to col. 7, line 58 – col. 8 line 67, col. 9, line 47 – col. 10, line 35, and figures 5-6. Nothing in these passages of Miller, or any

other part of Miller, teaches or suggests the features of the claims related to an "instruction issue unit" that issues "complete instruction bundles" toward multiple execution clusters, where at least one complete instruction bundle is "issued having an out-of-order alignment" as recited in Claim 1. Miller also does not teach or suggest "alignment and dispersal circuitry" capable of "reordering each of the at least one complete instruction bundle having the out-of-order alignment" so as to "align the syllables in the complete instruction bundle with correct ones of the lanes" as recited in Claim 1.

Miller is concerned with a system and method for compressing and decompressing variable length instruction packets in a processor. Miller does not teach or suggest anything related to reordering instruction bundles to accommodate our-of-order instruction bundles. These teachings simply do not appear in Miller, or any other cited art, and the final Office Action fails to specifically identify any such teaching.

As the features of Claim 1 and the other independent claims are not taught or suggested by the art of record, all independent and dependent claims are believed to be allowable. The Applicants respectfully request withdrawal of the § 103 rejection and full allowance of all claims.

If the Examiner believes that Miller or Jouppi do indeed teach the features described above, the Applicants respectfully request that the Examiner specifically identify which elements and teachings are believed to correspond to the claims, so that any alleged teachings can be fully distinguished on appeal.

II. CONCLUSION

As a result of the foregoing, the Applicants assert that all pending claims in this application are in condition for allowance and respectfully request full allowance of all claims.

SUMMARY

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@davismunck.com*.

The Commissioner is hereby authorized to charge any fees connected with this communication (including any extension of time fees) or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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